

Reply to Office Action dated February 9, 2004

REMARKS

Claims 1-19 are pending in this application. Claims 1, 10 and 19 are independent claims. By this amendment, claims 1, 10 and 19 are amended.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

The Claims Define Patentable Subject Matter

The Office Action rejects: (1) claims 1, 2, 4-11 and 13-19 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,104,512 to Batey, Jr. et al. (hereafter Batey); (2) claims 10 and 13 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,590,682 to Hamilton (hereafter Hamilton); (3) claims 10 and 11 under 35 U.S.C. §102(e) as being anticipated by Japanese Publication No. 11-112431 to Shimizu et al (hereafter Shimizu); and (4) claims 3 and 12 under 35 U.S.C. §103(a) as being unpatentable over Batey in view of U.S. Patent NO. 6,590,682 to Hamilton (hereafter Hamilton) and further in view of U.S. Patent No. 5,517,608 to Suzuki et al. (hereafter Suzuki).

There rejections are respectfully traversed.

Applicant respectfully submits that the cited references fail to teach or suggest each and every feature as set forth in the claimed invention.

In the present invention, the host device sequences multiple peripherals by polling, and subsequent to the polling, adjusts the luminous intensity. Therefore, a series of steps can both (1) establish communications with, and a sequence of,

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all peripherals to be simultaneously communicated with and (2) determine a minimum communicable luminous intensity in accordance with communications range.

The rejections under 35 U.S.C. §102(e)

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited references, Batey or Hamilton or Shimizu, each fail to teach or suggest each and every feature as set forth in the claimed invention.

The Claims fail to be Anticipated by Batey

The Office Action alleges that Batey discloses the claimed invention, as set forth in independent claims 1, 10 and 19.

In the present invention, the optical space transmission device's bi-directional communications (one to plural bi-directional optical communications) are established between a host device and plural peripheral devices. Specifically, the

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host device inquires upon each peripheral device to confirm that it is a peripheral device to be communicated with by polling, and communication is established by arranging all the peripheral devices that desire to be communication with in an order so that the host device can communicate with the peripheral devices simultaneously and independently.

Subsequent to the polling sequence in the present invention, the luminous intensity is adjusted downward if a successful transmission is detected. For example, it is preferable that the luminous intensity is adjusted a plurality of levels in such a manner that a luminous intensity is maximized when starting transmission, and as long as the transmission result determines that the transmission is performed successfully, the luminous intensity is reduced by one level. However, if the transmission result signifies that the transmission was not performed successfully, the luminous intensity is increased by one level, thereby determining a minimum required luminous intensity. As such, the luminous intensity to respective peripheral devices from the host is optimized. (see for example, applicant's specification, page 11).

In contrast with the present invention, the purpose of Batey's invention is to attempt a connection (communication link with another device) starting at a minimum power level. If the connection fails in Batey, the IR power level is incremented and the device retries to set-up a communication link. (see Batey, col. 6, lines 20-24).

In other words, in Batey, the IR power level is initially set at a lowest power level, instead of at a maximum level. (see Batey, Fig. 7, and col. 6, lines 25-26). Because Batey's power

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level is initially set at a lowest power level, Batey must increment the power level step by step to arrive at an appropriate level where communication can be established.

As such, Batey fails to teach or suggest determining if a communication transmission is successful by detecting a returned command from an associated office in response to data transmitted thereto at a predetermined maximum luminous intensity. Furthermore, Batey fails to teach or suggest adjusting a subsequent luminous intensity downward based on a result of a successful transmission. Instead, Batey starts with a lowest power level and adjusts upwards until a communication link is established, and then the intensity level is maintained when a first successful transmission detection result is obtained.

In addition, Batey is completely silent about performing a polling sequence that ranks an associated office in order when looking at a plurality of peripheral devices.

As such, the presently claimed invention as set forth in independent claims 1, 10 and 19 are quite distinguishable from Batey.

Applicant respectfully submits that independent claims 1, 10 and 19 are allowable over Batey for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1, 2, 4-11 and 13-19 under 35 U.S.C. §102(e) is respectfully solicited.

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The Claims fail to be Anticipated by Hamilton and/or Shimizu

The Office Action also alleges that Hamilton and Shimizu discloses the claimed invention, as set forth in independent 10. Applicant respectfully disagrees with these allegations.

Claim 10 is at least directed towards a one to plural bi-directional optical communications device for determining, subsequent to a polling sequence that ranks an associated office in an order, whether a communication transmission is performed successfully.

In contrast to the present invention, both Hamilton and Shimizu at least fail to teach or suggest a one to plural bi-directional communications, but instead only teaches a one to one communication. (see for example Fig. 7 of Hamilton; and Fig. 1 of Shimizu).

Furthermore, the present invention is at least directed towards a polling sequence that ranks an associated office in an order.

As such, applicant respectfully submits that both Hamilton and Shimizu are completely silent about the foregoing characteristic structure of the present invention concerning the adjusting of the luminous intensity subsequent to the polling sequence which ranks an associated office in an order with respect to the plural peripheral devices.

The Office Action alleges that Hamilton's polling sequence is illustrated by polling sequence 44, 46,..., 58 for adjusting a luminous intensity based on a result of detecting the luminous intensity of the previous transmission. (see Office Action, page 3, paragraph 3). However, the polling sequence in the present invention is directed towards the host device inquiring upon

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plural peripheral devices to confirm whether each is a peripheral device to be communicated with, and establishing communication by arranging all the peripheral devices that desire to be communication with in an order so that the host device can communicate with the peripheral devices simultaneously and independently.

As such, at least because both Hamilton and Shimizu fail to disclose plural bi-directional optical communications utilizing one host, but instead only discloses a one-to-one communication, applicant respectfully submits that both Hamilton and Shimizu cannot teach or suggest the claimed polling sequence which ranks an associated office in an order.

Again, applicant respectfully submits that both Hamilton and Shimizu fail to even remotely disclose the polling for confirming peripheral devices that are to be communicated with, and arranging all of the peripheral devices which desire to be communicated with in an order.

For at least the reasons noted above, we believe the present invention as set forth in claim 10 is distinguishable from Batey, Hamilton and/or Shimizu.

Applicant respectfully submits that independent claim 10 is allowable over both Hamilton and/or Shimizu for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 10, 11 and 13 under 35 U.S.C. §102(e) is respectfully solicited.

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The rejection under 35 U.S.C. §103(a)

Applicant also respectfully submits that Suzuki fails to make up for the deficiencies found in Batey and Hamilton.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

The Claims fail to be obvious by the combination of Batey, Hamilton and Suzuki

Applicant respectfully submits that the combination of Batey, Hamilton and Suzuki fail to teach or suggest each and every feature as set forth in the claimed invention because neither of the references make up for the deficiencies noted above which we found in the other references.

For example, as noted above, applicant respectfully submits that each of the cited references at least fail to teach or suggest a polling sequence that ranks an associated office in an order. In other words, like Batey and Hamilton, Suzuki also fails to teach or suggest a polling sequence that ranks an associated office in an order.

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As such, Applicant respectfully submits that dependent claims 3 and 12 are allowable over the combination of Batey, Hamilton and Suzuki for at least the reasons noted above.

Accordingly, withdrawal of the rejection of claims 3 and 12 under 35 U.S.C. §103(a) is respectfully solicited.

Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.


Respectfully submitted,

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